#### **Notes and Precautions:**

For a successful data communication with the Solar charger, ensure that driver software for USB to TTL (CP2102 or PL2303 is installed in your laptop). These drivers are available on internet and can also be downloaded from our website. Also please ensure that the drivers are suitable with the operating system being used by you Windows 10 or Windows 7 or other.

Communication with the Solar Charger is made through a USB to Serial adaptor cable. Please ensure driver for the USB to TTL converter is installed in your PC / Laptop.

One no. USB cable is supplied with each meter. A Nine pin Serial Connector is provided on the side wall of the meter meant for communication with the PC.

Precaution: Please note that the USB cable should not be randomly snapped from the laptop or Charger. Allow windows to disable the USB port and then plug out the respective USB cable/ adapter. Sudden snapping of the connection can harm the computer and the solar charger both.

A serial port controller is software program provided with the device. Use this software for communication with the data logger. In case these software are not available, the same may be downloaded or requested for. For software support please write to <u>service@everon.in</u>

A serial port program is provided for general communication with the device. Please ensure that the Baud Rate decided for the same is 115200 and relevant serial port is selected. In case of doubt go to Device Manger in your windows and locate the correct serial port created by the USB adapter.

The default frequency set for updating is 900 seconds. However user can set the frequency from 90 Seconds to 9999 Seconds. (Frequency is the rate at which device data is uploaded to the remote server. A smaller time interval shall allow larger amount of data to be collected in the server memory. Do not set frequency of upload to less than 900 seconds, unless necessary.)

#### List of Parameters for programming and communication with the device:

COMMAND	PURPOSE	REMARKS
SHOW=	Shows values of all instantaneous parameters like PV Voltage, PV Current, Battery Voltage, Battery current etc.	Always use this command to check instant working of the energy meter
FREQ=	Set updating inverval, in seconds ( for setting frequency = 900, set value FREQ=900)	Do not set a small timer interval of data updating, as it will create a large data file.
DEFAULT=	This Command Displays Default settings for the Solar Charger.	Use this Information while changing solar panels, Batteries etc.
MAXCURRENT=	This command is used to set the Maximum permissible charging current for the battery. (For setting Charging Current of 10.0 A, set MAXCURRENT=10.0)	See confirmation on right pane of the control window.
BOOSTVOLT=	This parameter sets the Maximum charging Voltage for the Lead Acid Battery.	This parameter is default set as 14.4 V. This may be varied depending upon the type of Battery.
ABSORBVOLT=	This parameter sets the Absorption Voltage for the Battery. Absorption mode is activated after Boost Voltage.	This parameter is default set as 13.7 V. This may be varied depending upon the type of Battery.
FLOATVOLT=	This parameter sets the Float Voltage for the Battery. Absorption mode is activated after Absorption Mode.	This parameter is default set as 13.2 V. This may be varied depending upon the type of Battery.
LOWBAT=	This parameter sets the Low Voltage Trip for the Battery.	This parameter is default set as 11.2 V. This may be varied depending upon the type of Battery.
BATMUL=1	This parameter is default set a 1, means 12.0 V Battery. Do not try to set this parameter.	This parameter should not be set to any other value.
TITLE=	Sets the Title of the Device. Device is identified on the website/webpage by the given Title issued by the user	Set a Alphanumeric Title or Code / Identifier. Max Limit Recommended is 10 characters.

### **Connecting Solar Charger with Wi-Fi Network**

Everon Solar Charger has a Built-in IoT interface and ready to connect with any given Wi-Fi Network and export the device data to a remote website. This feature makes the charger universally monitor-able. The device data.

For setting the Wi-Fi SSID and Password for a network handshake, follow the given instructions:

- 1. Press the Setup Button. This sets the device display into active mode and shows the IP address of the signed in network. Ensure that the default network or previously known network is not present. If the known network is not present, no IP address shall be shown on the display.
- 2. Press the AP Button. By pressing this button the device Wi-Fi adapter turns into and Access Point and displays itself as the SetupGadgetxxxx. The number displayed after SetupGadget is the Mac address of the Wi-Fi Adapter.
- 3. Scan the available wi-fi networks using a smart phone or a laptop. Join the Network "SetupGadget xxxx".
- 4. Once having joined to network, go to IP address, 192.168.4.1
- 5. An application shall appear, allowing the user to scan the wifi networks. Press the scan button. Choose the network shown in the application, join the network and key in the password / key.
- 6. A confirmation is displayed on the screen.
- 7. As a token of successful connection with the network, the IP address issued by the network to the device is displayed on the LCD display.
- 8. As soon as communication settings are done, the device displays switches over to normal mode showing various other values.



## **STEPS:-**

- 1. Connect the DSL-02 as per wiring diagram.
- 2. Connect DSL-02 to your computer or Laptop with serial communication cable.
- 3. Run the application (serial port controller).
- 4. Select the serial communication Ports.
- 5. Ensure USB to TTL driver installed in your PC.

Serial Port Controller			
Ports	Baudrate		Recieved Data
COM5	115200	$\sim$	
No Port Open			
	<b>D</b> · <b>D</b>	<b>C</b> 1	

6. Select the Baudrate **115200**.



7. Select the **Open port**.



# 8. Now Select the **SHOW** Commands.

Ports		Baudrate		Recieved Data		
COM5	$\sim$	115200	~	FREQ=8965		
Port Open: COM5				Rec=0 ROLL=0 strt=0		
Open Port	Close	Port	Refresh	stop=0 Volt = 30.0, Amp = .0, Watt = .0, K	WH = .0, 09:09:1	9 15:16:46
Commands						
DEFAULT DATA SHOW	^	Loa	d File			
TIME LAST INIT						
FREQ HOLD	~					
Sent Data						

Data received.

# Download Data from DSL-02 and Store on your PC (Only for Models with Storage Memory)

The Stored Data can be downloaded in to your PC memory in a log file.

1. For this press the Start Logging Button on the control panel.



2. A new window shall open, choose the file name suitable to you. Give a file title and press Open.



- 3. Go back to the control panel and execute DATA= command. The device shall dump the entire data stored in the memory on the control panel and also copy to the created log file.
- 4. Go back to the file location and open the file. You will find all the downloaded values listed along with respective real time stamps.